

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Petition of Otter Creek Solar LLC, pursuant to	)	
30 V.S.A. § 248, for a certificate of public good	)	
authorizing the installation and operation of the	)	Case No. 19-0516-PET
“Warner Solar Project,” a 2.2 MW solar electric	)	
generation facility located off Rice Lane in	)	
Bennington, Vermont		

**RESPONSES OF THE AGENCY OF NATURAL RESOURCES TO OTTER CREEK
SOLAR’S FIRST SET OF INFORMATION REQUESTS**

NOW COMES the Agency of Natural Resources (ANR or Agency) by and through its attorney, Donald J. Einhorn, and hereby responds to the February 10, 2020 request for information by Otter Creek Solar, LLC (“Petitioner” or “OCS”).

PROPOUNDING PARTY: Otter Creek Solar, LLC

RESPONDING PARTY: Vermont Agency of Natural Resources

SET NO: First

GENERAL OBJECTIONS

The following General Objections are made in response to each interrogatory, request to admit, or request to produce (the “Requests”) as if the objections were fully set forth therein. Any response is given without waiver of any objection, whether or not an objection is stated. The Agency reserves the right to later raise any additional, available objections.

1. The Agency objects to the Requests on the grounds and to the extent they call for responses that exceed the scope of the Agency’s testimony and exhibits or are neither relevant to the subject matter of the pending action nor reasonably calculated to lead to the discovery of admissible evidence.
2. The Agency objects to the Requests on the grounds and to the extent that they seek responses that are subject to any or all of the following privileges: (a) the attorney-client privilege; (b) attorney work product and trial preparation privileges; (c) executive or deliberative process privilege, or that are otherwise privileged or protected from disclosure. The Agency construes each of the Requests so as not to seek any information or materials that falls within each of these privileges. To the extent any information or materials protected by these privileges is inadvertently produced, such production is not to be construed as a waiver of such privilege or protection.
3. The Agency objects to the Requests on the grounds and to the extent that they are overbroad, unduly burdensome or oppressive, unreasonably cumulative or duplicative, and not proportional to the needs of the case.
4. The Agency objects to the Requests on the grounds and to the extent that they are vague, unintelligible, contain undefined terms, require speculation, or are otherwise incapable of a reasonable response.
5. The Agency objects to the Requests on the grounds and to the extent that they purport to impose obligations on the Agency that are beyond the scope of the Public Utility Commission Rules or the Vermont Rules of Civil Procedure or other applicable law, request information and/or documents that require an unreasonable investigation on the part of the Agency, or purport to require the Agency to create documents or perform new analyses responsive to any such Requests.
6. The Agency objects to the Requests to the extent that they seek the production of documents and information already in the possession of, or publicly available to, or readily obtainable to the Petitioner and its counsel, on the ground that with respect to such production, the Requests are thereby rendered unduly burdensome.
7. The Agency objects to the Requests to the extent that they seek the production of documents and information not within the Agency’s possession, custody, or control.

8. The Agency objects to the Requests to the extent that they call for a legal conclusion.

The Agency expressly reserves the right to supplement, clarify, revise, or correct any or all of the responses herein at any time. By making any response to the Requests, the Agency does not waive and hereby expressly reserves, the right to assert any and all objections as to the admissibility of such responses into evidence at the time of trial of this action, or in any other proceeding, on any and all grounds, including but not limited to competency, relevance, materiality, and privilege. The Agency also does not waive and hereby expressly reserves the right to object on any ground at any time to a demand for further responses to these requests or any other discovery procedures involving or relating to the subject matter of the Requests responded to herein. Further, the Agency provides the responses herein without in any manner, express or implied, admitting that the items in the Requests or in any response thereto are relevant or material to the subject matter of this proceeding.

Interrogatories, Requests to Produce, and Requests to Admit

Q.1-1. Please refer to Exhibit ANR-RP-3 (the “248 Guidance”). The Guidance states that “Generally, the Agency will not consider an impact to be unduly adverse if less than 10% of an S1 (very rare) or 20% of an S2 (rare) plant population at the site is impacted.” Please (i) explain the process and rationale by which such percentages were determined, and (ii) produce all evidence supporting the determination of such percentages.

A.1-1. Objection: The term “evidence” is vague and to the extent it calls for a legal conclusion; overly broad, unduly burdensome and not proportional to the needs of the case; requires and unreasonable investigation and a new analysis which has not been performed; seeks documents which are not in the possession of the Agency and are otherwise readily obtainable and available to Petitioner. Without waiving the objection, the rationale for establishment of impacts of 10% and 20% as thresholds to avoid undue adverse impacts to S1 or S2 plants was developed as a balance between allowing some impact to individuals while not jeopardizing the survival of the population. The Agency’s objective is to protect the population, and accordingly the Agency allows some impacts to individuals as reflected by the thresholds.

The thresholds were established in consultation with members of the Scientific Advisory Group on Flora as well as with staff within the Agency and are based on the collective experience and recommendations of those resource experts. The Scientific Advisory Group on Flora is one of six Scientific Advisory Groups. The Scientific Advisory Groups (SAGs) consist of technical experts in specific taxonomic groups of plants and animals, to assist the state Endangered Species Committee (ESC). They have performed this function for over 30 years. SAG members are appointed by the ESC or the appropriate SAG Chair for two-year terms, renewable each year at the ESC Annual Meeting.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-2. Admit that there is no legislative authority given to the Secretary of ANR to list or protect rare or very rare species in Vermont that do not fit within the criteria to be classified as threatened or endangered.

A.1-2. Objection to the request calls for a legal conclusion. Without waiving the objection, denied. The Agency is a statutory party in Section 248 proceedings before the Public Utility Commission. The Section 248 review process provides for the protection of rare and very rare species.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-3. Admit that “population” as used in the 248 Guidance is undefined.

A.1-3. Denied. Population is defined in the Section 248 Guidance Document.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-4. Admit that “impact” as used in the 248 Guidance is undefined.

A.1-4. Denied. The Section 248 Guidance Document includes a number of examples of what would constitute an impact.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-5. If an Aster is transplanted to a conservation area and survives, is it considered to be “impacted” for purposes of the 248 Guidance? If so, explain why and produce all evidence on which you rely to support that conclusion.

A.1-5. Objection, the term “evidence” is vague and to the extent it calls for a legal conclusion. Without waiving the objection, yes. Survival of transplanted individuals is typically low when plants are transplanted to a natural setting as opposed to a garden where they would be regularly watered, weeded, etc. The Agency requires watering of all transplants throughout the initial growing season and three to five years of monitoring since transplanted individuals often experience delayed mortality. If the transplants survive through this initial 3-5 year period, they would not count towards the threshold for further mitigation. See **Attachment 1-5**.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-6. If a number of Asters plants are transplanted to a separate conservation area and subsequently the number of Asters within the conservation area increases, is it considered to be “impacted” for purposes of the 248 Guidance? If so, explain why and produce all evidence on which you rely to support that conclusion

A.1-6. Objection, the term “evidence” is vague and to the extent it calls for a legal conclusion. The request is incapable of a reasonable response in that it hypothesizes Asters (plural) being transplanted and then asks whether “it” (singular) is impacted. Without waiving the objection, yes. See response to previous question.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-7. Please refer to the 248 Guidance and the 10% impact language, what constitutes a “plant population” for purposes of this guideline and produce all evidence on which you rely to support what constitutes a “plant population”?

A.1-7. Objection, the term “evidence” is vague and to the extent it calls for a legal conclusion. The request is also unduly burdensome and disproportional to the needs of the case. Without waiving the objection, as stated in the referenced 248 Guidance, at page 4, a population is “all of the individuals of a given species that occur within one kilometer unless separated by an isolating barrier.” This standard is utilized by NatureServe and most heritage programs in other states. See **Attachment 1-7**.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-8. Please refer to the 248 Guidance and the 10% impact language, what constitutes a “plant population” for purposes of this guideline for Asters?

A.1-8. See response to previous question.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-9. Are the Asters at the Chelsea and Apple Hill solar project sites part of the same “population” as those found at the Project site? If not, why not and produce all evidence on which you rely to support your position?

A.1-9. Objection: The term “evidence” is vague and to the extent it calls for a legal conclusion; overly broad, unduly burdensome and not proportional to the needs of the case; requires and unreasonable investigation; and seeks documents which are not in the possession of the Agency and are otherwise readily obtainable and available to Petitioner. Without waiving the objection, no. The populations are almost kilometer apart and separated by Route 7, an isolating barrier.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-10. Are the Asters at the Battle Creek solar project site part of the same “population” as those found at the Project site? If not, why not and produce all evidence on which you rely to support your position?

A.1-10. Objection, the term “evidence” is vague and to the extent it calls for a legal conclusion. Battle Creek solar project site is not defined. Without waiving the objection, the Agency is not aware of any white arrow-leaved aster plants at the Battle Creek solar project site (Case 17-3727).

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-11. Are the Asters in the railroad corridor part of the same “population” as those found at the Project site? If not, why not and produce all evidence on which you rely to support your position?

A.1-11. Objection, the term “evidence” is vague and to the extent it calls for a legal conclusion. Without waiving the objection, yes. The white arrow-leaved asters in the railroad corridor immediately adjacent to the Warner Solar Project site are part of the same population of the white arrow-leaved asters growing on the Warner Solar Project site.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-12. Please refer to Exhibit ANR-RP-2 (the “Plant List”). The Plant List states that “These species may be rare because they have very particular habitat requirements, are subject to habitat loss, are at the edge of their range, are vulnerable to disturbance or collection, or have difficulty reproducing for unknown reasons.” Please state (i) the date that the Aster was added to the Plant List, (ii) the State rank assigned to the Aster for each year it has been on the Plant List, (iii) the reasons why it was assigned such rank, and (iv) all evidence relied on by ANR to justify the rank it was assigned.

A.1-12. Objection, the term “evidence” is vague and to the extent it calls for a legal conclusion. Without waiving the objection, the Aster was included on Vermont’s Rare, Threatened and Endangered Plant Species as of July 1989 as *Aster sagittifolius*. No ranks were assigned to this initial list. The Aster was subsequently ranked as S1 in 1993 and retained at that rank subsequently although the scientific name was changed to *Symphotrichum urophyllum* to reflect currently accepted taxonomic revision. For one year, beginning in 2009 the Aster was considered as Historic which indicates that no extant populations were known in the state. This rank is applied when a species has not been observed for 20 or more years and the location is vague or has been unsuccessfully searched. In 2010 it was again ranked as S1, the status which continues thru the present. The ranking as S1 was established based on the limited number of known populations in the state as explained in my testimony. See **Attachment 1-12** for the various plant lists.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-13. Please refer to the Plant List. Please state the statutory basis on which the Plant List was created.

A.1-13. Objection, to the extent the request calls for a legal conclusion. Without waiving the objection, the Plant List (Exhibit ANR-RP-2) was created and is maintained as part of the Department's regular work in support of its mission which is "the conservation of fish, wildlife and plants and their habitats for the people of Vermont." The Department is established by Vermont statute (10 V.S.A. Section 4041).

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-14. Please refer to the Plant List and the “Explanation of Legal Status and Information Ranks” which states “Very rare (Critically imperiled): At very high risk of extinction or extirpation due to extreme rarity (often 5 or fewer populations or occurrences)...” Please explain the difference between “populations” and “occurrences” for purposes of the Plant List and produce all evidence on which you rely to support your position.

A.1-14. Objection, the term “evidence” is vague and to the extent it calls for a legal conclusion. Without waiving the objection, as used in the Plant List an occurrence is synonymous with a population.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-15. Does “population” as used in the Plant List mean the same thing as “population” as used in the 248 Guidance.

A.1-15. Yes.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-16. Please explain the delisting process with respect to the Plant List.

A.1-16. Objection, to the extent the request calls for a legal conclusion. Without waiving the objection, the term “delisting” is used by the Department when considering removal of a species from the Vermont Endangered and Threatened Species List. It is not a term used in connection with the referenced Plant List.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-17. Admit that the Aster is capable of growing among Non-Native Invasive Species (as such term is used in Exhibit ANR-RP-4) (“NNIS”).

A.1-17. Admitted.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-18. Admit that the Aster is currently growing at the Project site among NNIS.

A.1-18. Admitted.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-19. Admit that the Aster is growing within the railroad corridor adjacent to the Project.

A.1-19. Admitted.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-20. Admit that the railroad corridor is brush hogged periodically by Vermont Railway.

A.1-20. Objection: the terms “brush hogged” and “periodically” are vague and undefined; the request requires speculation; the Agency is not in possession of the requested information and it is available to Petitioner from other sources. Without waiving the objection, denied. I have no first-hand knowledge of the management practices employed by Vermont Railway adjacent to the Project site.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-21. Admit that the Asters growing at the Project site are currently shaded by NNIS.

A.1-21. Objection to the term “currently” as it is vague and undefined. Without waiving the objection, admitted in part and denied in part. While many individuals are growing beneath NNIS, others are growing in openings away from any canopy cover.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-22. Admit that the Aster is growing at the recently completed Battle Creek solar facility which is on the other side of the railroad corridor.

A.1-22. Objection, in that “Battle Creek solar project site” is not defined. Without waiving the objection, denied. See response to question 10.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-23. Admit that the Aster seed is available to purchase online from multiple nurseries in the United States.

A.1-23. Admitted in part and denied in part. The seed of white arrow-leaved aster is available for purchase from commercial nurseries. However, it is highly unlikely that seeds from the distinct population of the white arrow-leaved aster growing at the Project site, or any other site in Vermont, are commercially available.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-24. Please refer to Q11 of the Direct Testimony of Bob Popp dated January 30, 2020 (the “Popp PFT”). How often is the *Flora Conservanda* updated?

A.1-24. *Flora Conservanda*: The New England Plant Conservation Program List of Plants in Need of Conservation was first published in 1996. It was subsequently updated in 2012 and published in 2013.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-25. Please refer to Q12 of the Popp PFT. When was the last meeting of state experts where the state ranks were revised? Please list the state experts in attendance and their respective qualifications, and under what statutory authority the meeting was called.

A.1-25. Objection to the extent the request calls for a legal conclusion. Without waiving the objection, a full review of the Rare Plant List last occurred in 2014. The review occurred over a series of about four meetings. In addition to myself, regular participants included the Assistant Botanist, Aaron Marcus, Arthur Gilman, Botanical Consultant and author of the New Flora of Vermont, and Matt Peters, Botanical Consultant.

As indicated in my response to Q13 this is done as part of the Department's ongoing work in support of its mission.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-26. Please refer to Q12 of the Popp PFT. What is the Scientific Advisory Group on Flora?

A.1-26. Please refer to my response to Question 1.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-27. Please refer to Q15 of the Popp PFT. What are the dangers of allowing a plant to spread beyond its naturally occurring range?

A.1-27. Objection to the word “danger” as being argumentative, vague and undefined. Without waiving the objection, there is no concern with allowing a native plant to naturally spread beyond its historic range.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-28. Please explain why you believe that sheep will eat the Aster.

A.1-28. Sheep are generalist grazers that forage mostly on forbs and grasses. Forbs are herbaceous flowering plants that would include the Aster.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-29. Are there reasons to protect the Aster in Vermont other than its perceived rarity within the State? If so, please state those reasons and produce all evidence on which you have relied.

A.1-29. Objection to the phrase “perceived rarity” as being argumentative, vague, speculative and undefined; and to the word “evidence” as vague and to the extent it calls for a legal conclusion. Without waiving the objection, the Aster is considered to be a naturally occurring species at the extreme edge of its range in Vermont. Please refer to *Flora Conservanda*. All native species are part of our state’s heritage and we are concerned with any species that is naturally rare or becomes rare. Because it is at the northern edge of its range, it may be of particular importance to preserve the genetic makeup of Vermont’s Aster populations and allow these plants to possibly spread northward as the climate warms.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-30. Please refer to Q17 of Popp PFT. Is it possible the Aster is a “weedy, disturbance adapted species”?

A.1-30. Objection in that the word “possible” is vague, speculative and undefined. Without waiving the objection, I agree that the Aster could be characterized in Vermont as a disturbance adapted species. I do not consider it to be weedy.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-31. Do weedy, disturbance-adapted species typically have high rates of reproduction and good dispersal mechanisms?

A.1-31. Generally most do. However, high rates of seed production do not necessarily equate to high rates of seedling establishment and recruitment.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-32. Does the Aster have high rates of reproduction and good seed dispersal adaptations?

A.1-32. I have no direct knowledge of the reproductive capacity of the Aster. I have observed a number of plants with abundant flowers. However, this does not necessarily equate to a high reproductive rate because it is unknown whether seeds are fertile and if they are, whether the proper conditions exist for germination and recruitment. Plants at the edge of their range may lack the proper pollinators to fertilize flowers or may lack the appropriate climate conditions for the seeds to mature. It is not unusual to encounter empty fruits when collecting seeds from rare plants in Vermont.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-33. Is it possible the Aster has few known reported occurrences in Vermont because it has only recently expanded its range into Vermont?

A.1-33. Objection, in that the word “possible” is vague, speculative and undefined. Without waiving the objection, no. There are historical collections from the period 1899 to 1908 from Pownal, Vermont. The Aster was not collected again until 1988 when it was observed in Bennington. The second known population was discovered in 2014 also in Bennington. The population at the project site represents the third known extant population.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-34. Do you agree the Aster's limited distribution in Vermont is probably not related to the loss of the species' native habitat in Vermont?

A.1-34. Yes.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-35. Admit that the Aster occurs on and near the project site with numerous NNIS in highly disturbed habitats?

A.1-35. Objection to the word “numerous” and the phrase “highly disturbed” as being vague, speculative and undefined. Without waiving the objection, denied. The Aster occurs in an old field setting which is an example of an early successional habitat. The old field also harbors a number of Non-native invasive species.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-36. Please refer to the 248 Guidance. The Guidance states that “Generally, the Agency will not consider an impact to be unduly adverse if less than 10% of an S1 (very rare) or 20% of an S2 (rare) plant population at the site is impacted.” Please explain why there is a differential between the 10% standard for S1 plants and the 20% standard for S2 plants and please produce all evidence supporting the differential between such percentages.

A.1-36. Objection: The term “evidence” is vague and to the extent it calls for a legal conclusion; the request is overly broad, unduly burdensome and not proportional to the needs of the case. Without waiving the objection, the differential is based on the species rarity in the state and its potential for extirpation. Plants with fewer populations are more likely threatened with extirpation due to human activity or stochastic events. The allowed impact is proportional to a species’ rarity and threat. See responses to previous questions.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-37. Identify and produce all evidence that was relied upon to justify the ranking of the Aster as S1.

A.1-37. Objection: The term “evidence” is vague and to the extent it calls for a legal conclusion; the word “justify” is argumentative; the request is overly broad, unduly burdensome and not proportional to the needs of the case. Without waiving the objection, see responses to previous questions and my Pre-filed testimony Question and Answer 11.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Q.1-38. Identify and produce all documentation related to the assignment of the rank of S1 to the Aster.

A.1-38. Objection to the request as overly broad, unduly burdensome and not proportional to the needs of the case. Without waiving the objection, see previous responses and documents produced in response to these requests.

Person Responsible: Robert Popp
Title: Botanist, Vermont Fish and Wildlife Department

Requests to Produce

1. Please produce all documents requested in the preceding questions.

See documents produced as **Attachments 1-5, 1-7 and 1-12**.

2. Please produce any and all documents identified, referenced, relied upon, or referred to in responding to these information requests.

See documents produced as **Attachments 1-5, 1-7 and 1-12**. Prefiled testimony and exhibits have already been provided via filing in ePUC.

3. Please produce any and all documents you expect to offer as exhibits at the technical hearings of these proceedings.

Objection to the extent that the request calls for attorney work product or documents prepared in anticipation of litigation. Without waiving the objection, please refer to testimony and exhibits which have been filed in ePUC. The Agency has not yet identified surrebuttal or cross-examination exhibits.

Dated at Montpelier, Vermont, this 2nd day of March, 2020.

As to objections:



By: _____

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